

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A method to facilitate debugging computer code
2 within an operating system kernel, comprising:
 - 3 receiving a source file containing a data structure definition, wherein the
4 source file contains a plurality of data structures;
5 searching the source file for the data structure definition;
6 upon finding the data structure definition, saving the data structure
7 definition in a storage structure;
8 automatically generating a new source code to display a data structure
9 through execution of a source generator program, wherein the new source code is
10 created using the data structure definition, ~~and~~ wherein automatically generating
11 the new source code includes automatically generating source code to walk a
12 linked list of data structures, and wherein generating the new source code
13 involves:
 - 14 examining the plurality of data structures in the storage
15 structure to locate a cross-reference between data structures, and
16 generating the new source code for the plurality of data
17 structures;
 - 18 compiling the new source code into an executable module;
19 installing the executable module into a modular debugger; and

20 during execution of the modular debugger, displaying a content of the data
21 structure to a user of the modular debugger using the executable module, whereby
22 the user is able to view the content of the data structure.

1 2. (Original) The method of claim 1, wherein receiving the source file
2 includes receiving a plurality of source files.

1 3 (Canceled).

1 4. (Currently amended) The method of ~~claim 3~~ claim 1, wherein saving the
2 data structure definition in the storage structure includes saving the plurality of
3 data structures in the storage structure.

1 5-6 (Canceled).

1 7. (Previously presented) The method of claim 1, wherein displaying the
2 content of the data structure includes displaying the content of the linked list of
3 data structures.

1 8. (Original) The method of claim 1, wherein the data structure definition
2 includes one of a tree, a linked list, a doubly linked list, and a queue.

1 9. (Currently amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method to facilitate debugging computer code within an operating system kernel,
4 the method comprising:

5 receiving a source file containing a data structure definition, wherein the
6 source file contains a plurality of data structures;

7 searching the source file for the data structure definition;
8 upon finding the data structure definition, saving the data structure
9 definition in a storage structure;
10 automatically generating a new source code to display a data structure
11 through execution of a source generator program, wherein the new source code is
12 created using the data structure definition, ~~and~~ wherein automatically generating
13 the new source code includes automatically generating source code to walk a
14 linked list of data structures, and wherein generating the new source code
15 involves:
16 examining the plurality of data structures in the storage
17 structure to locate a cross-reference between data structures, and
18 generating the new source code for the plurality of data structures;
19 compiling the new source code into an executable module;
20 installing the executable module into a modular debugger; and
21 during execution of the modular debugger, displaying a content of the data
22 structure to a user of the modular debugger using the executable module, whereby
23 the user is able to view the content of the data structure.

1 10. (Original) The computer-readable storage medium of claim 9, wherein
2 receiving the source file includes receiving a plurality of source files.

1 11 (Canceled).

1 12. (Currently amended) The computer-readable storage medium of ~~claim~~
2 ~~11~~ claim 9, wherein saving the data structure definition in the storage structure
3 includes saving the plurality of data structures in the storage structure.

1 13-14 (Canceled).

1 15. (Previously presented) The computer-readable storage medium of
2 claim 9, wherein displaying the content of the data structure includes displaying
3 the content of the linked list of data structures.

1 16. (Original) The computer-readable storage medium of claim 9, wherein
2 the data structure definition includes one of a tree, a linked list, a doubly linked
3 list, and a queue.

1 17. (Currently amended) An apparatus to facilitate debugging computer
2 code within an operating system kernel, comprising:
3 a receiving mechanism that is configured to receive a source file
4 containing a data structure definition;
5 a search mechanism that is configured to search the source file for the data
6 structure definition, wherein the search mechanism is further configured to search
7 the source file for a plurality of data structures;
8 a saving mechanism that is configured to save the data structure definition
9 in a storage structure;
10 an automatic code generating mechanism that is configured to
11 automatically generate a new source code to display a data structure through
12 execution of a source generator program, wherein the new source code is created
13 using the data structure definition;
14 wherein the automatic code generating mechanism is further configured to
15 automatically generate source code to walk a linked list of data structures;
16 an examining mechanism that is configured to examine the plurality of
17 data structures in the storage structure to locate a cross-reference between data
18 structures;
19 wherein the generating mechanism is further configured to generate the
20 new source code for the plurality of data structures;

21 a compiling mechanism that is configured to compile the new source code
22 into an executable module;
23 an installing mechanism that is configured to install the executable module
24 into a modular debugger; and
25 a displaying mechanism that is configured to display a content of the data
26 structure to a user of the modular debugger using the executable module, whereby
27 the user is able to view the content of the data structure.

1 18. (Original) The apparatus of claim 17, wherein the receiving
2 mechanism is further configured to receive a plurality of source files.

1 19 (Canceled).

1 | 20. (Currently amended) The apparatus of ~~claim 19~~ claim 17, wherein the
2 saving mechanism is further configured to save the plurality of data structures in
3 the storage structure.

1 21-22 (Canceled).

1 23. (Previously presented) The apparatus of claim 17, wherein the
2 displaying mechanism is further configured to display the content of the linked list
3 of data structures.

1 24. (Original) The apparatus of claim 17, wherein the data structure
2 definition includes one of a tree, a linked list, a doubly linked list, and a queue.